



Mineral Industry Surveys

For information, contact:

Joyce A. Ober, Sulfur Commodity Specialist

U.S. Geological Survey

983 National Center

Reston, VA 20192

Telephone: (703) 648-7717, Fax: (703) 648-7722

E-mail: jober@usgs.gov

Maria Arguelles (Data)

Telephone: (703) 648-7990

Fax: (703) 648-7975

E-mail: marguell@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

SULFUR IN MAY 2003

During the month, production of recovered elemental sulfur was 768,000 metric tons, according to the U.S. Geological Survey (USGS). May production was 3% lower than April 2003, and 7% higher than that of May 2002. Shipments were 5% lower than those of April 2003. Producers' ending stocks for May 2003 were 184,000 tons.

Import and export data for May 2003 were not available at the time of publication and will be published in the Sulfur in June 2003 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for April 2003 were estimated to be 166,000 tons; exports were 38,000 tons. Imports of sulfuric acid for April 2003 were 75,000 tons; exports were 22,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information, data collected and published by the Alberta (Canada) Energy and Utilities Board (EUB) in its monthly production reports in 2002, and information from other published sources. Alberta sulfur data are important because the majority of Canadian sulfur is produced in that Province, and most of the Canadian sulfur that enters the United States comes from Alberta. EUB discontinued its monthly reports in 2003. Strategies for estimating import data from Canada are being explored.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources
	Petroleum ²	Natural gas	Total	
2002:				
January-December ^r	6,750	1,760	8,500	8,490
January-May ^r	2,760	736	3,500	3,510
May	576	145	721	758
June	553	132	685	680
July	565	146	711 ^r	715
August	589 ^r	125	714 ^r	725 ^r
September	543 ^r	132	675 ^r	659 ^r
October	545 ^r	164	708 ^r	699 ^r
November	579	155 ^r	733	747
December	611	168	779	755
2003:				
January	603 ^r	169	772 ^r	768 ^r
February	528 ^r	148	676 ^r	660 ^r
March	598 ^r	160	758 ^r	739 ^r
April ^r	625	166	791	807
May ^p	628	140	768	764
Total	2,980	783	3,770	3,740

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2002:						
January-December	1,100	9,450	430	11,300	1,710	26,800
January-April	349	2,440	134	2,350	525	6,390
April	95	668	30	663	150	1,900
May	89	409	44	1,100	142	1,730
June	67	106	30	774	97	1,270
July	113	405	44	1,140	175	1,960
August	95	1,860	30	944	138	3,240
September	86	1,050	45	1,420	148	3,010
October	108	1,240	29	944	175	3,290
November	91	843	29	942	143	2,230
December	99	1,100	45	1,640	171	3,720
2003:						
January	100	1,280	44	2,460	144	3,740
February	100	2,330	45	1,850	145	4,250
March	100	2,870	45	2,130	145	5,660
April	100	4,160	45	2,530	166	7,760
Total	400	10,600	179	8,970	600	21,400

^eEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau; as adjusted by U.S. Geological Survey.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2002:									
January-December	615	201	17,900	217	71	3,750	1,060	344	36,400
January-April	269	88	7,250	59	19	384	456	146	14,000
April	89	29	2,040	16	5	63	111	36	3,820
May	50	16	1,750	17	6	219	67	22	2,080
June	70	23	1,770	12	4	254	83	27	2,460
July	37	12	1,300	21	7	541	61	20	2,520
August	22	7	878	22	7	224	51	17	5,430
September	37	12	1,130	19	6	319	59	19	2,120
October	33	11	1,170	9	3	255	47	15	2,110
November	51	17	1,390	28	9	1,010	93	31	3,080
December	45	15	1,310	30	10	548	142	47	2,590
2003:									
January	38	13	1,330	29	9	511	67	22	1,900
February	30	10	1,080	25	8	836	57	19	2,360
March	42	14	1,740	19	6	279	63	21	2,480
April	34	11	1,320	29	10	638	75	25	2,710
Total	144	48	5,460	102	33	2,260	262	87	9,440

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2002:					
January-December	555	40,000	148	49	12,800
January-April	149	11,800	45	15	3,570
April	30	2,710	12	4	953
May	8	1,980	13	4	1,070
June	127	6,650	13	4	1,100
July	2	189	12	4	887
August	49	1,340	15	5	1,230
September	70	6,920	16	5	1,840
October	76	3,450	11	4	1,040
November	60	2,400	9	3	839
December	14	5,300	14	5	1,190
2003:					
January	107	3,440	12	4	1,380
February	63	3,410	16	5	1,150
March	31	2,020	11	3	1,360
April	38	1,400	22	7	1,610
Total	239	9,070	61	19	5,500

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2002:			
January-December ^f	7,930	1,710	9,640
January-April ^f	5,980	525	6,510
April	653	150	803
May	749	142	891
June	553	97	650
July	713	175	888
August	676 ^r	138	814 ^r
September	589 ^r	148	737 ^r
October	623 ^r	175	798 ^r
November	687	143	830
December	741	171	912
2003:			
January	661 ^r	144	805 ^r
February	597 ^r	145	742 ^r
March	708 ^r	145	853 ^r
April	769	166	935
Total	2,740	600	3,340

^eEstimated. ^fRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	May 2003 ^p		April 2003		Total 2003 ²		Year to date 2002 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production ^r	Shipments
PAD 1:								
Petroleum and coke	15	15	15	15	90	91	110 ^r	111 ^r
Natural gas	2	2	2	2	11	10	12	12 ^r
Total	18	17	17	17	100	101	122	124
PAD 2:								
Petroleum and coke	79	79	75	75 ^r	376	369	328 ^r	329 ^r
Natural gas	4	3	3	3	17	18	21 ^r	21
Total	82	82	78	78 ^r	393	387	349 ^r	350 ^r
PAD 3: ³								
Petroleum and coke	417	419	398 ^r	410 ^r	1,920	1,920	1,850 ^r	1,850 ^r
Natural gas	40	40	40 ^r	39 ^r	176	175	181 ^r	184 ^r
Total	457	458	438 ^r	449 ^r	2,090	2,100	2,030	2,040
PAD 4 and 5: ⁴								
Petroleum and coke	117	102	137 ^r	138 ^r	599	575	469 ^r	469 ^r
Natural gas	94	105	121 ^r	123 ^r	580	578	521 ^r	528 ^r
California	94	80	115 ^r	116	481	465	376 ^r	376 ^r
Total	211	207	258 ^r	262 ^r	1,180	1,150	990 ^r	997 ^r
Grand total	768	764	791 ^r	807 ^r	3,770	3,740	3,500 ^r	3,510 ^r

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2003			2002
	May	April	Year to date	total
Production	9.04 ^p	9.62 ^r	9.10	8.50 ^r
Shipments	9.00 ^p	9.82 ^r	9.04	8.49 ^r
Exports of sulfur	NA	0.46	0.73	0.56
Imports of sulfur:				
Canada	NA	1.22 ^e	1.22 ^e	1.10
Mexico	NA	0.55	0.54	0.43
Total ²	NA	2.02 ^e	1.83 ^e	1.71
Export of H ₂ SO ₄	NA	0.27	0.19	0.15
Import of H ₂ SO ₄ :				
Canada	NA	0.41	0.44	0.62
Europe	NA	0.35	0.31	0.22
Total ²	NA	0.91	0.80	1.06
Consumption: ³				
Domestic sources	NA	9.36	8.32	7.93 ^r
Imports	NA	2.02 ^e	1.83 ^e	1.71
Total	NA	11.40	10.10	9.64 ^r
Sulfur export values ⁴	NA	\$37	\$38	\$72
Sulfur import values: ⁴				
Canada	NA	\$42	\$27	\$9
Mexico	NA	\$56	\$50	\$26
Average	NA	\$47	\$36	\$16
H ₂ SO ₄ export values ⁴	NA	\$73	\$90	\$86
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$39	\$38	\$29
Europe	NA	\$22	\$22	\$17
Average	NA	\$36	\$36	\$34

^eEstimated. ^pPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because May trade data were not available, May consumption was not determined.

⁴Average value per ton for most recent data available.